IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A microfluidic device for delivering a drug to an individual, comprising:

a reservoir for receiving the drug therein;

an output needle having an input in communication with the reservoir and an output receivable within the individual; and

a pressure source engageable with the reservoir and having an adjustable configuration responsive to a predetermined fluid between a first configuration and a second configuration for urging the drug from the reservoir through the output needle.

2. (Original) The microfluidic device of claim 1 further comprising a flexible membrane isolating the pressure source from the reservoir.

3. (Original) The microfluidic device of claim 1 further comprising a valve operatively connecting the input of the output needle and the reservoir.

4. (Original) The microfluidic device of claim 3 wherein the valve defines a chamber having an input communicating with the reservoir and an output communicating with the input of the output needle.

5. (Currently Amended) The microfluidic device of claim 4 wherein the valve includes:

a flexible membrane for dividing the chamber into a [first] drug flow portion and a [second] trigger receiving portion; and

a trigger disposed in the trigger receiving portion in the chamber of the valve and having a first configuration preventing the flow of the drug through the chamber and a second configuration allowing the flow of the drug through the chamber.

6. (Original) The microfluidic device of claim 5 further comprising a first sensing needle having an input receivable in the individual and an output within the trigger receiving portion of the chamber, the first sensing needle allowing physiological fluids to pass from the individual to the trigger receiving portion of the chamber.

7. (Original) The microfluidic device of claim 6 further comprising a second sensing needle having an input receivable in the individual and an output within the trigger receiving portion of the chamber, the second sensing needle allowing physiological fluids to pass from the individual to the trigger receiving portion of the chamber.

8. (Original) The microfluidic device of claim 6 wherein the trigger includes a hydrogel post, the hydrogel post expandable in response to exposure to a predetermined condition.

9. (Withdrawn) The microfluidic device of claim 1 further comprising:

a second reservoir for receiving a bolus of the drug therein; and

an actuation device movable between a non-actuated position and an actuated position wherein the bolus of the drug is urged through the outlet needle and into the individual.

10. (Original) A microfluidic device for delivering a drug to an individual, comprising:

a body defining a reservoir for receiving the drug therein and a conduit, the conduit having an input communicating with the reservoir and an output;

an output needle having an input receivable in the body to communicate with the output of the conduit and an output extending outside of the body for insertion into the individual; and

a pressure source engageable with the reservoir and being responsive to a predetermined fluid for urging the drug from the reservoir through the output needle.

11. (Original) The microfluidic device of claim 10 wherein the output needle is removable from the body.

12. (Original) The microfluidic device of claim 10 further comprising a flexible membrane isolating the pressure source from the reservoir.

13. (Original) The microfluidic device of claim 10 wherein the conduit includes a valve for controlling the flow of the drug from the reservoir to the output needle, the valve defining a valve chamber and being movable between a non-actuated position wherein the valve prevents the flow of the drug from the reservoir to the output needle and an actuated position wherein the valve allows for the flow of the drug from the reservoir to the output needle.

14. (Currently Amended) The microfluidic device of claim 13 wherein the valve includes:

a flexible membrane for dividing the valve chamber into a [first] drug flow portion and a [second] trigger receiving portion; and

a trigger disposed in the trigger receiving portion of the valve chamber and having a first configuration with the valve in the non-actuated position and a second configuration with the valve in the actuated position.

15. (Original) The microfluidic device of claim 14 further comprising a first sensing needle having an input receivable in the individual and an output within the trigger receiving portion of the valve chamber, the first sensing needle allowing physiological fluids to pass from the individual to the trigger receiving portion of the valve chamber.

16. (Original) The microfluidic device of claim 15 wherein the trigger includes a hydrogel post, the hydrogel post changing configuration in response to exposure to a predetermined condition in the physiological fluids.

17. (Withdrawn) The microfluidic device of claim 10 wherein the body defines a second reservoir for receiving a bolus of the drug therein; and wherein the microfluidic device further comprises an actuation device movable between a non-actuated position and an actuated position wherein the bolus of the drug is urged through the outlet needle and into the individual.

18. (Currently Amended) A microfluidic device for delivering a drug to an individual, comprising:

a body defining a reservoir for receiving the drug;

an output needle having an input in communication with the reservoir and an output receivable within the individual; [and]

an adhesive for affixing the body to the individual; and[.]

a pressure source including an hydrogel member expandable in response to exposure to a predetermined physical property, the hydrogel member engageable with the reservoir and [for] urging the drug from the reservoir through the output needle as the hydrogel member expands.

19. (Cancelled)

20. (Withdrawn) The microfluidic device of claim 18 further comprising a docking station for supporting the output needle, the docking station being removably connected to the body.

21. (Original) The microfluidic device of claim 18 further comprising a valve defining a chamber and interconnecting the reservoir and the output needle, the valve movable between a non-actuated position wherein the valve prevents the flow of the drug from the reservoir to the output needle and an actuated position wherein the valve allows for the flow of the drug from the reservoir to the output needle

22. (Currently Amended) The microfluidic device of claim 21 wherein the valve includes:

a flexible membrane for dividing the valve chamber into a [first] drug flow portion and a [second] trigger receiving portion; and

a trigger positioned within the trigger receiving portion of the valve chamber and having a first configuration with the valve in the non-actuated position and a second configuration with the valve in the actuated position.

23. (Original) The microfluidic device of claim 22 further comprising a first sensing needle having an input receivable in the individual and an output within the trigger receiving portion of the valve chamber, the first sensing needle allowing physiological fluids to pass from the individual to the trigger receiving portion of the valve chamber.

24. (Original) The microfluidic device of claim 23 wherein the trigger includes a hydrogel post, the hydrogel post changing configuration in response to exposure to a predetermine condition in the physiological fluids.

25. (Withdrawn) The microfluidic device of claim 10 wherein the body defines a second reservoir for receiving a bolus of the drug therein; and wherein the microfluidic device further comprises an actuation device movable between a non-actuated position and an actuated position wherein the bolus of the drug is urged through the output needle and into the individual.